

REMARKS

No claims have been canceled or amended by this response. Claims 1-4, 6-19 and 21-28 are pending in this application.

Claims 1-4, 6, 7, 9, 10 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Funk et al. (US 6,059,185) in view of Borgendale (US 5,734,568). Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Funk et al. in view of Borgendale and further in view of Behera (US 5,287,497). Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Funk et al. in view of Borgendale and further in view of Holm (US 3,949,363). Claim 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Funk et al. in view of Borgendale and further in view of Cahill et al. (US 6,574,377). Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Funk et al. in view of Borgendale and further in view of Green (US 5,602,936). Claims 15 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cahill et al. in view of Borgendale and further in view of DeLeo (US 6,576,857). Claims 17-19, 21, 22, 24 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cahill et al. in view of Borgendale and DeLeo and further in view of Funk et al. Claim 23 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cahill et al. in view of Borgendale and DeLeo and Funk et al. and further in view of Funk et al. Claim 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Cahill et al. in view of Borgendale and DeLeo and further in view of Haas (US 4,088,982). Claims 27 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cahill et al. in view of Borgendale and DeLeo and further in view of Milford (US 4,315,246). Reconsideration is respectfully requested.

Current check sorting methods, as described in detail in paragraphs [0003] – [0005] of the specification, result in checks being sorted based on the information contained in a line of characters at the bottom of each check. These characters, known as a Magnetic Ink Character Recognition (MICR) code, indicate the bank at which the account is maintained via a routing number, the account number and the check number

for each check. If the sorting is being performed by a check clearing house for a plurality of banks, this results in the checks being sorted by institution, i.e., bank. Optionally, the checks could be further sorted by account and check number for each account. As the checks are separated by account number for each bank, separators are typically inserted into the stack of checks to separate the checks for different accounts. The sorted checks are then sent to the respective banks for preparation and mailing of the account statements. Once the checks have been sorted by account number, the bank will prepare the account statements. The account statements for these checks are prepared in account order, and the sorted checks are matched with the appropriate account statement for mailing to the account holders. Thus, the mailing for the account statements is produced and ordered based on account number.

Applicants' invention is directed to an improved check sorting system capable of ordering cancelled checks for a plurality of accounts in a predetermined manner other than by account number. By utilizing the sorting system of the present invention, for example, banks can take advantage of postal discounts available for presorted mail without adding additional costs or processing in the preparation of the mail pieces that include the account statements and cancelled checks.

In view of the above, claim 1 is directed to a method for sorting a plurality of checks that comprises "reading information from a check of the plurality of checks, the check being drawn against an account maintained by a customer at a financial institution; using at least a portion of the information read from the check, obtaining a sort priority order number for the check from a database, the sort priority order number being based on a delivery location specified by the customer for an account statement associated with the account; sorting the check based on the sort priority order number obtained from the database; and repeating the reading, obtaining and sorting steps for each of the plurality of checks." In this manner, the checks can be sorted to take advantage of postal discounts for presorted mail.

Funk, in contrast, is directed to a check processing system and method that eliminates a manual encoding step by electronically recording and storing checking

account information and check amounts of checks provided for deposit in transactions occurring over a predetermined transaction period at the time of each transaction, automatically generating a document identifier associated with each check transferred in each transaction and storing the document identifier with the checking account information and check amount associated with each check, and then electronically matching the checks with the electronically recorded checking account information and check amounts. The check amounts are then encoded on respective matched checks. (Col. 3, lines 3-15).

More specifically, in Funk, when a check is received for deposit by a customer, the check amount, as written on the check, is obtained. The check is also passed through a MICR reader to read the checking account information pre-printed on the check. The depositor's account number is also obtained, either by reading it from a deposit slip or keying it in on a numerical keypad. The checking account information, check amount and depositor's account number are then transmitted electronically to a document identification number (DIN) database where they are stored. The checking account information, check amount, and depositor's account number are further augmented and referenced by the document identification number. The document identification number or identifier is generated automatically and may be composed of a combination of all or some of the transaction data, including the transaction date, branch number of the bank, teller identification, and document sequence number. The document identification number is a unique identifier used to reference a specific check. (Col. 3, line 43 to Col. 4, line 5). Throughout a predetermined transaction period, such as each day of operation, the data associated with all transactions taking place at the banking institution are transmitted at the time at the time of presentment and recoded in the DIN database. At the end of the transaction period, all transaction check data is then downloaded to a central processing location of a bank or a service contractor to perform check processing. In addition, the paper checks associated to the same transaction period are also sent to the processing center or servicer. The processing center then performs a power encoding procedure by first searching in the downloaded data for the electronic record, including the DIN and checking account information of each transaction, and matching the paper check. Subsequently, since the check

amount is electronically available, the checks may be power-encoded with the check amounts, and may be spray endorsed with the DIN and depositor's account number. (Col. 4, lines 14-41).

In Funk, the power encoding is done by automated machinery that read the MICR data on the paper check, searches the electronic transaction data in the file that was transmitted, and finds a match. The check amount in the electronic data is read and then encoded on the paper check in the proper field or location. The machines also sort the checks by destination so that electronic presentment and transit collection as known in the art may take place to complete the check processing procedure. (Col. 4, lines 43-61). As described in Funk, the transit process delivers the checks to the bank having the accounts the checks are drawn on, at which place another capturing process, termed "inclearing," is performed. Inclearing ensures that the checks are actually drawing on that bank's accounts, the amounts are encoded on the checks, the correct settlement amount is given to the other banks, and the correct amount is finally settled or posted out to the customer's account. The checks may then be returned to the checking account owner. (Col 1. lines 56-66).

Thus, in Funk the only sorting that occurs is based on the financial institution upon which the check is drawn. This is no different than as described in the background section of the present specification. There is no disclosure, teaching or suggestion in Funk of a sort priority order number that is based on a delivery location specified by the customer for an account statement associated with the account. The document identification number is not in any way related to a delivery location specified by the customer of an account statement associated with the account. As noted above, in Funk the document identification number is composed of a combination of the transaction data. The transaction data does not include a delivery location specified by the customer for an account statement associated with the account. The system in Funk does no more than sort the checks based on financial institution and account number as is well known in the art. There is no sort priority order number that is based on a delivery location specified by the customer for an account statement associated with the account as in the present invention.

Borgendale et al. is directed to a data processing system and method for the correction of address information on mail. More specifically, Borgendale is directed to reducing to a minimum the amount of typing necessary by an operator to provide necessary and sufficient information to sort a mail piece down to the routing code for the destination region post office. In Borgendale, each mail piece includes a destination address block that includes a printed addressee name, street name, street number, destination city, state and zip code information. The sending post office applies an identifying number to each mail piece which represents a serial number to identify the mail piece. A digital image of each mail piece processed by the sending post office is obtained, which includes an image of the destination address block. A first stage character recognition operation is performed on the image of the city, state and zip code in an attempt to identify the destination and regional post office to which the physical mail piece is to be transported. An electronic mail piece folder 16 is assembled by a data processing system which includes information such as the alphanumeric characters of the serial number, the city, state and zip code which is obtained from the character recognition of the image. The alphanumeric characters for the addressee name, street name and number will have a space available for it in the mail piece electronic folder, however these are not yet character recognized by the system. Enough information as to the state, city and zip code is character recognized from the captured image to enable the routing and transportation of the physical mail piece to the destination regional post office. While the physical mail piece is in transit, the mail piece electronic folder is transmitted from the sending post office to a remote processing system. Operators at the remote processing system are available to provide operator assist in the recognition of the address, street name and street number information from the captured image which is in the captured image included in the mail piece electronic folder. (Col. 3, line 44 – Col. 4, line 48).

As further described in Borgendale, the remote processing system has a memory which includes a storage partition for the mail piece electronic folder, it includes an operating system program, and a character recognition program. The character recognition program will attempt to automatically character recognize the street name and street number data and optionally the addressee name from the captured image. If

the character recognition of the addressee name and/or the street name and street number are successful by the character recognition program, then the alphanumeric strings resulting from that recognition operation are added to the mail piece electronic folder. However, if the character recognition program is not able to resolve some of the information in the captured image address block, then the operator assist mode is invoked. In the operator assist mode, the captured image of the address block is displayed on a display screen at a workstation to an operator. Also displayed to the operator is the portion of the alphanumeric strings in the city, state, zip and/or the addressee street name, street number which have been fully resolved or partially resolved by the character recognition program. A contextual predictive keying program is included in the memory of the remote processing system. As the operator at a workstation is typing in a portion of the misrecognized addressee name or street name or street number or possibly the misrecognized city or state information, the contextual predictive keying program uses the addressee record data base with routing codes, to determine when only the necessary information is input by the operator at the workstation to sort the mail piece at the destination regional post office. When a sufficient amount of information has been entered by the operator at workstation to accomplish this purpose, no further information is necessary and the routing code corresponding to the destination regional post office sorting requirements, is entered into the routing code block in the mail piece electronic folder. (Col 4, line 49 – Col. 5, line 28).

As stated in Borgendale, it is an object of the invention in Borgendale to infer from a minimum number of keystrokes for a corresponding information type such as zip code or alternately street name, the balance of the characters necessary to complete that unit of data and other, redundant data uniquely identified by the completed field. For example, if a zip code accurately recognized, uniquely identifies both a city and a state, then it is unnecessary to type in the name of the city and the state where the zip code is typed in by the operator. The circumstance under which the zip code would be typed in by the operator is where in an optical character recognition environment, the zip code was misrecognized or where the zip code was handwritten and not recognizable. It is then up to the human operator to read the zip code on the front of the

mail piece and key in characters for the zip code. Similarly, but more importantly, now that the zip code has been entered by the operator, and the city and state inferred because they are uniquely identified, if there has been a misread of the street name by the optical character recognition equipment, in accordance with the invention, the operator can begin to type in the characters of the street name. Because there will come a point in the number of characters entered at which the name will be uniquely identified within the zip code area, the operator will be signaled to no longer type further characters for the street name, the rest of those characters being supplied by the system. Now that the system has inferred the city name, state name and the street name merely from the operator having typed in the zip code and a small portion of the street name, this system will determine whether this amount of information is sufficient to allow final sorting of the mail piece at the destination postal office. This is accomplished by the system being able to access the final sorting level information for mechanical separation and from this sorting information, the operator and the system have assembled an address kernel comprising the characters input from the keyboard and the balance of the characters inferred by the system resulting in, for this example, zip code, city, state and street name. (Col. 10, line 49 – Col. 11, line 21).

The system in Borgendale relates to the use of a character recognition program to read the addressee information on a mail piece, and the use of an operator to assist in the reading where the character recognition program is unable to correctly read the information. The system in Borgendale uses a predictive keying method to reduce the number of keystrokes required by the operator to input the information that was not able to be read by the character recognition program. The system in Borgendale does not disclose, teach or suggest any type of a sort priority order number obtained from a database, nevertheless a sort priority order number that is based on a delivery location specified by the customer for an account statement associated with the account. There is no disclosure, teaching or suggestion in Borgendale of "obtaining a sort priority order number for the check from a database, the sort priority order number being based on a delivery location specified by the customer for an account statement associated with the account" as in the present invention, nor is there any disclosure, teaching or suggestion

in Borgendale of "sorting the check based on the sort priority order number obtained from the database."

Furthermore, the combination of Funk and Borgendale will not arrive at the present invention. The Office Action contends that it would have been obvious "to combine the check sorting method cited in Funk with the technique as taught by Borgendale because the claimed invention is merely a combination of old elements." (Office Action, page 4). As noted above, the only technique taught by Borgendale is for a character recognition program to read the addressee information on a mail piece, and an operator to assist in the reading (utilizing a predictive keying method to reduce the number of operator keystrokes required) where the character recognition program is unable to read the information. The combination of Funk and Borgendale will not result in a method for sorting checks that comprises "reading information from a check of the plurality of checks, the check being drawn against an account maintained by a customer at a financial institution; using at least a portion of the information read from the check, obtaining a sort priority order number for the check from a database, the sort priority order number being based on a delivery location specified by the customer for an account statement associated with the account; sorting the check based on the sort priority order number obtained from the database; and repeating the reading, obtaining and sorting steps for each of the plurality of checks" as is recited in claim 1

For at least the above reasons, Applicants respectfully submit that claim 1 is allowable over the prior art of record. Each of claims 2-4, 6, 7, 9, 10 and 13 is dependent upon claim 1, and therefore includes all of the limitations of claim 1. For the same reasons given above with respect to claim 1, Applicants respectfully submit that claims 2-4, 6, 7, 9, 10 and 13 are allowable over the prior art of record.

Claim 8 is dependent upon claim 7, which is dependent upon claim 1, and therefore includes all of the limitations of claim 1. As noted above with respect to claim 1, neither Funk nor Borgendale, either alone or in combination, disclose, teach or suggest all of the limitations of claim 1. The reference to Behera does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons

given above with respect to claim 1, Applicants respectfully submit that claim 8 is allowable over the prior art of record.

Claim 11 is dependent upon claim 1, and therefore includes all of the limitations of claim 1. As noted above with respect to claim 1, neither Funk nor Borgendale, either alone or in combination, disclose, teach or suggest all of the limitations of claim 1. The reference to Holm does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons given above with respect to claim 1, Applicants respectfully submit that claim 11 is allowable over the prior art of record.

Claim 12 is dependent upon claim 1, and therefore includes all of the limitations of claim 1. As noted above with respect to claim 1, neither Funk nor Borgendale, either alone or in combination, disclose, teach or suggest all of the limitations of claim 1. The reference to Cahill does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons given above with respect to claim 1, Applicants respectfully submit that the claim 12 is allowable over the prior art of record.

Claim 14 is dependent upon claim 1, and therefore includes all of the limitations of claim 1. As noted above with respect to claim 1, neither Funk nor Borgendale, either alone or in combination, disclose, teach or suggest all of the limitations of claim 1. The reference to Green does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons given above with respect to claim 1, Applicants respectfully submit that the claim 14 is allowable over the prior art of record.

Independent claim 15 is directed to a system for sorting a plurality of checks, each of the checks being drawn against an account maintained by a respective customer at a financial institution, the system comprising "a scanner module to read information from a check; a controller coupled to the scanner, the controller receiving the information read from the check by the scanner; a database coupled to the controller, the database storing sort priority order numbers for the plurality of checks, the sort priority order number for each check being based on a delivery location specified by the respective customer for an account statement associated with the account maintained by the respective customer, the controller obtaining the sort priority

order number for the check from the database using at least a portion of the information read from the check; and a sorter coupled to the controller, the sorter receiving the check from the scanner and placing the check into one of a plurality of bins based on the sort priority order number obtained from the database."

Cahill et al., in contrast, is directed to an electronic system for storing and retrieving electronic images of checks and other financial instruments. In Cahill, a system is provided whereby a customer of the banking institution can request, retrieve, and display copies of checks and, preferably, generate correspondence with a copy of a check, i.e. a check image, all without bank staff involvement. Cahill is directed to an automated system which retains images of the front and back of each check and data associated with that check. The associated data includes the account number, the check number and the check amount as well as image data. The system allows a user to request, retrieve and display check copies with turnaround time much faster than in the prior art. (Col. 3, lines 6-17).

In Cahill, a sort station comprises a sorter 200, having an input hopper 203, imaging device 204, optical character reader 205, MICR reader 205 and a plurality of sort pockets 208, 209, 210. Checks are fed into the input hopper 203 and conveyed to the digital imager 204 and MICR reader 205. After the MICR line is decoded, the checks are passed on one of the eight output pockets, i.e., the repair pocket 208, the repass pocket 209, or one of the six normal sort pockets 210. (Col. 14, lines 4-28). Prior to making the decision relating to which of the output pockets 208, 209, 210 to send the check, a "best read" comparison is performed on the data retrieved from the MICR line. The check sorter 200 is instructed to provide a "best read" on the MICR line, and returns a decoded MICR line with "!" characters replacing any questionable data in the MICR line. If the "best read", i.e., the decoded MICR line contains no "!" characters, the control computer 201 causes the check image to be converted to a TIFF file 22 and directs the check to one of the six normal output pockets 210. (Col 18, lines 18-37). When inconsistencies exist between the optically and magnetically decoded MICR lines or, where one or more characters were not decoded by either the MICR reader 205 or the OCR device 206, the check 1 can either be directed to the repass pocket 209 for re-

processing on the sorter 200 or to the repair pocket 208 for MICR line correction at the repair station 4. (Col. 18, line 64 – Col. 19, line 3). As more specifically described in Figs. 5A and 5B of Cahill, during processing, the MICR line is decoded by the OCR device 206 (see step 216) and the MICR reader 205 (see step 215). Some of the time the "best read" contains "!" characters, and therefore, errors. This can result if one or more characters are not recognized by either of the decoders. If the "best read" contains "!" characters, errors are present (250). If no errors are present, the sorter 200 is controlled to send check 1 to one of the normal pockets 210 (see 251), the image and associated data are converted to a TIFF file (252) and the merged TIFF file 22 is written to the storage space 505. (See 253). Where "best read" contains "!" characters, the number of such characters is compared with a threshold number (260). Checks 1 containing some "!" characters, but fewer than the threshold level, are sent to the repair pocket 208 (see 261) and the associated image for that check is sent to a repair queue 25 (see 262). Checks 1 with an equal or a greater number of inconsistencies than a threshold number are sent to a repass pocket 209 (see 263) and the associated image is discarded. Normal processing continues until there are no more checks 1 in the input hopper 203 (see 214), at which time normal processing is complete (265). (Col. 19, lines 10-38).

Thus, the system in Cahill sorts checks based solely on the amount of errors contained in the "best read" of the MICR line. If there are no errors, the checks are sent to any one of the normal pockets 210. If there are errors, then the check is sent to either one of the repair pocket 208 or the repass pocket 209 based on the number of errors. There is no disclosure, teaching or suggestion in Cahill of a database storing sort priority order numbers for the plurality of checks, where the sort priority order number for each check is based on a delivery location specified by the respective customer for an account statement associated with the account maintained by the respective customer as is recited in claim 15.

Additionally, there is no disclosure, teaching or suggestion in Cahill of the controller obtaining the sort priority order number for the check from the database using at least a portion of the information read from the check. The sorting in Cahill is

performed based on the number of errors in the "best read" of the MICR line for each check. There is also no disclosure, teaching or suggestion in Cahill of the sorter receiving the check from the scanner and placing the check into one of a plurality of bins based on the sort priority order number obtained from the database. As noted above, the placement of the checks in Cahill is based solely on the number of errors in the "best read" of the MICR line.

As noted above, the system in Borgendale relates to the use of a character recognition program to read the addressee information on a mail piece, and the use of an operator to assist in the reading where the character recognition program is unable to correctly read the information. The system in Borgendale uses a predictive keying method to reduce the number of keystrokes required by the operator to input the information that was not able to be read by the character recognition program. The system in Borgendale does not disclose, teach or suggest any type of a database storing a sort order priority number, nevertheless a sort priority order number that is based on a delivery location specified by the customer for an account statement associated with the account maintained by the customer. There is no disclosure, teaching or suggestion in Borgendale of "a database coupled to the controller, the database storing sort priority order numbers for the plurality of checks, the sort priority order number for each check being based on a delivery location specified by the respective customer for an account statement associated with the account maintained by the respective customer, the controller obtaining the sort priority order number for the check from the database using at least a portion of the information read from the check" as in the present invention, nor is there any disclosure, teaching or suggestion in Borgendale of "a sorter coupled to the controller, the sorter receiving the check from the scanner and placing the check into one of a plurality of bins based on the sort priority order number obtained from the database."

DeLeo is directed to a method of optimizing a mail sorting process. In DeLeo, a stream of mail items, each impressed beforehand with a code that indicates the delivery location or destination of the mail item, are fed into the input of a sorting machine. A reading device reads the code on each mail item, and a sorting device sorts the mail

pieces into one of a plurality of outputs U1, U2, U3, ...UN. A programmable electronic unit controls the sorting device to direct the incoming stream of mail into the outputs of the sorting machine. The path traveled by a mail item through the sorting device from the input into a given output Ui depends on the code impressed on the mail item and read by the reading device. The electronic unit comprises an electronic table, which is supplied data relative to the code impressed on each mail item and in turn supplies a set of output data indicating the output Ui to which the mail item is to be directed. (Col. 3, lines 24-57).

There is no disclosure, teaching or suggestion in DeLeo of a "database storing sort priority order numbers for the plurality of checks, the sort priority order number for each check being based on a delivery location specified by the respective customer for an account statement associated with the account maintained by the respective customer." In DeLeo, the electronic table supplies output data indicating the output of the sorting machine to which the mail item is to be directed based on the address read from the envelope as addressed by the sender. This is not the same as a sort priority order number based on a delivery location specified by a respective customer for an account statement associated with the account maintained by the respective customer.

There is no disclosure, teaching or suggestion in Cahill et al., Borgendale, or DeLeo, either alone or in any combination, of "a database coupled to the controller, the database storing sort priority order numbers for the plurality of checks, the sort priority order number for each check being based on a delivery location specified by the respective customer for an account statement associated with the account maintained by the respective customer, the controller obtaining the sort priority order number for the check from the database using at least a portion of the information read from the check; and a sorter coupled to the controller, the sorter receiving the check from the scanner and placing the check into one of a plurality of bins based on the sort priority order number obtained from the database" as is recited in claim 15.

For at least the above reasons, Applicants respectfully submit that claim 15 is allowable over the prior art of record.

Claim 16 is dependent upon claim 15, and therefore includes all of the limitations of claim 15. For the same reasons given above with respect to claim 15, Applicants respectfully submit that claim 16 is allowable over the prior art of record.

Claims 17-19 and 21-25 are dependent upon claim 15, and therefore include all of the limitations of claim 15. As noted above with respect to claim 15, neither Cahill et al., nor Borgendale, nor DeLeo, either alone or in combination, disclose, teach or suggest all of the limitations of claim 15. The reference to Funk does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons given above with respect to claim 15, Applicants respectfully submit that claims 17-19 and 21-25 are allowable over the prior art of record.

Claim 26 is dependent upon claim 15, and therefore includes all of the limitations of claim 15. As noted above with respect to claim 15, neither Cahill et al., nor Borgendale, nor DeLeo, either alone or in combination, disclose, teach or suggest all of the limitations of claim 15. The reference to Haas does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons given above with respect to claim 15, Applicants respectfully submit that claim 26 is allowable over the prior art of record.

Claims 27 and 28 are dependent upon claim 15, and therefore include all of the limitations of claim 15. As noted above with respect to claim 15, neither Cahill et al., nor Borgendale, nor DeLeo, either alone or in combination, disclose, teach or suggest all of the limitations of claim 15. The reference to Milford does not cure any of the above deficiencies, as it was relied upon for other features. For the same reasons given above with respect to claim 15, Applicants respectfully submit that claims 27 and 28 are allowable over the prior art of record.

In view of the foregoing remarks, it is respectfully submitted that all claims are in condition for allowance and favorable action thereon is requested.

Respectfully submitted,

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